

Appln. No.: 10/736,077
Amendment Dated: July 1, 2008
Reply to Office Action dated April 2, 2008

Amendments to the Drawings:

Replacement sheets for Figs. 1, 2, 4-10 are submitted.

New sheet for Figs 3A and 3B is submitted.

Remarks/Arguments

Reconsideration of this Application is requested.

The Examiner has objected to the drawings under 37 CFR § 1.83(a). Sheet 3 is a new sheets of drawings showing Fig 3A and Fig 3B. Fig. 3A has been added to a new sheet to show a pristine image and a filtered image. Fig. 3B is original Fig. 3 with clearer character identification.

The Examiner has objected to the specification under 35 USC § 112. The Examiner indicated that the specification should be revised to comply with 35 USC § 112.

Applicant has amended the specification to clarify the meaning and use of unclear, inexact and verbose terminology and comply with 35 USC § 112.

Claims 2-5 and 13-16 have been objected to by the Examiner because of certain information. The phrase "print/scan" has been replaced with the phrase "print or scan" to overcome the objection.

Claims 6 and 17 have cancelled.

Claim 4 has been amended by correcting the typographical error.

Claims 1-7, 10 and 11 have been rejected by the Examiner under 35 USC§ 112 for not having a specific utility.

Claim 1 and those claims dependent thereon have been amended to claim 9 specific utility namely including characterizing information into a secure indicia and determining the uniqueness of indicia.

Claims 1-20 have been rejected by the Examiner under 35 USC § 112 for being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Applicant has amended claim 1 by removing subject matter out of the preamble and into the body of the claim to provide additional clarity. Also the printing steps only appear in the preamble.

The Examiner has rejected claim 1 under 35 USC § 112 for omitting essential steps and using terms that have different meanings in the claims and the specification.

Claim 1 and the specification has been amended to supply the same meaning between claim 1 as amended and the specification.

The phrase "or other similar occasional events" has been deleted from claim 4 as amended.

Claim 1-7, 10 and 11 have been rejected by the Examiner under 35 USC § 101 for lacking patentable utility.

Claim 1 has been amended to have patentable utility.

Claim 1 has been rejected by the Examiner under 35 USC § 102(b) as being anticipated by Bradford (U.S. Patent Number 5,805,767).

Bradford disclose the following in the abstract.

In an optical character recognition (OCR) system an improved method and apparatus for recognizing the character and producing an indication of the confidence with which the character has been recognized. The system employs a plurality of different OCR devices each of which outputs a indicated (or recognized) character along with the individual devices own determination of how confident it is in the indication. The OCR system uses that data output from each of the different OCR devices along with other attributes of the indicated character such as the relative accuracy of the particular OCR device indicating the character to choose the select character recognized by the system and to produce a combined confidence indication of how confident the system is in its recognition.

Bradford discloses in the abstract how to combine an output from a multitude of OCR devices to determine the identity of a single character and a confidence level that can be associated with the accuracy of the determinations.

In Figs. 7A and 7B, Bradford depicts a human-readable description of common PDA results or Fig. 6D for OCR's 1-3.

In Fig 6D, col. 14, line 5 Bradford provides a description between a multiply of OCR device.

Fig. 7A-7B of Bradford provides information on how the word are segmented into characters i.e., number of spacer before the character positioning information. Bradford

determines if the three OCR devices are referring (in their determination of character identity) to the same character.

Bradford does not disclose or anticipate steps B, C, D, E, F, and G of claim 1 as amended namely:

- b) applying a predetermined set of algorithms for computing characterizing information;
 - c) determining estimates of robustness for each algorithm in said predetermined set of algorithms;
 - d) selecting, as a function of said estimates, said combination of descriptors generated by a corresponding combination of said algorithms as said characterizing information;
 - e) including said characterizing information into a secure indicia;
 - f) scanning said indicia and said printed block; and
 - g) determining uniqueness of said indicia using information obtained from step f
- and those claims dependent thereon.

Bradford discloses how to take OCR and run it against text and determine which way you obtain the highest confidence level in the result.

Bradford does not teach how to modify the OCR engine to achieve a high confidence level.

Applicant takes different algorithms that define different descriptors and access the algorithm to find the descriptor with the descriptors with the highest level of robustness.

The problem that applicant is solving is the problem of finding robust algorithms for determinations of further of a printed text block that are invariant with regard to a multitasks of defects and imperfectness of the printed text block. The problem that Bradford solves is the

problem of finding a most plausible identify of a given character providing that there are multiple algorithms designed to determine and identify.

Claims 2-6, 10 and 11 have been rejected by the Examiner under 35 USC § 103(A) as being unpatentable over Bradford in view of Gatto U.S. Patent Number 6,344,906.

Gallo discloses the following in lines 37-45 of col. 10.

The Image Sensor Control Unit 40 of FiG. 8 is capable of controlling a predetermined number of linear sensors simultaneously, a predetermined number of video outputs simultaneously from a given sensor, or a predetermined number of linear sensors having multiple video outputs simultaneously while retaining the same characteristics described in the paragraphs above. This feature is useful for duplex scanners, color scanners and multi-outputs linear sensors.

Gatto describes different image enhancement techniques Bradford and/or Gatto does not disclose or anticipate a filter designed to degrade the image and determine the robustness of the descriptors.

Gatto discloses the following in col. 8 of line 1-59.

FIG. 8 shows the architecture of the Universal Document Scanner Controller according to the present invention. The Universal Document Scanner Controller according to the present invention is a circuit 37 that integrates all of the control functions that are required to operate sheet-fed scanners, flatbed scanners, handheld scanners, slides scanners, duplex scanners, drum scanners and 2D still-image scanners. The Universal Document Scanner Controller is composed of twenty specialized units: the Light Source Control Unit 39, the Image Sensor Control Unit 40, The Anti-Skew Auto-Start Unit 41, the Pixel Correction Unit 42, the Black Sides Removal Unit 43, the Adaptative Thresholding Unit 44, the Image Enhancement Unit 45, the Motor Control Unit 46, the Rotary Encoder Control Unit 47, the Clock Generator Unit 48, the Memory Control Unit 49, the Host Interface Control Unit 50, the Packing Unit 51, the Image Compression Unit 52, the Up/Down Sampling Unit 53, the Dithering Unit 54, the General Purpose Status and Control Unit 55, the Power Management Unit 56, the Pattern Recognition Unit 57 and the Mouse Control Unit 58. The twenty specialized units are interconnected to and intercommunicate via an internal bus 38. Additional elements 59, 60, 61 and 62 may be integrated into the Universal Document Scanner Controller according to the present invention. These additional elements are: a Library Synthesized Core CPU 59 (Central Processing Unit), DSP (Digital Signal Processor) and/or Memory, a Print and/or Graphics and/or keyboard Controller 60, a Modem 61 or

other communications device and ADCs (Analog to Digital Converters) and/or DACs (Digital to Analog Converters) 62. Elements 59, 60, 61 and 62 are also connected and communicate via the internal bus 38.

The Universal Document Scanner Controller does not make use of programmed instructions stored in external memory to operate the specialized functions. Indeed, the Universal Document Scanner Controller according to the present invention relies essentially on direct interconnections between electronic gates to perform the specialized functions of at least the units 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57 and 58. Intercommunication between these units is carried out via the internal bus 38. The Universal Document Scanner Controller executes all of the specialized functions at extremely high speed because it makes use of hard-wired or microcoded specialized circuits instead of software programmed instructions. The host processor that communicates with the Universal Document Scanner Controller via the Host Interface Control Unit 50 creates and maintains some configuration tables that are stored in the memory and that are used by the specialized functions. The host processor can carry out some auxiliary functions that do not require very-high speed execution such as interpretation of statuses from the General Purpose Status and Controls Unit 56. In an alternate embodiment, the core CPU 59 uses programmed instructions stored in memory to perform auxiliary tasks or functions that may be required but that do not impact the performance of the Universal Document Scanner Controller.

Gatto describes a universal scanner controller designed to execute specialized functions such as a image sampling, compression correction, thresholding and enhancement at extremely high speeds.

Gatto does not disclose how to use image filters to access the robustness of various image characterizing descriptors.

Claims 7-9 and 12-20 have been rejected by the Examiner under 35 USC § 103(a) as being unpatentable over Bradford and Gatto and further in view of Montgomery et al. (U.S. 2003/0101148).

Montgomery discloses the following in paragraph 0140.

[0140] The indexing identifier can be printed on the label 201 in various formats. For example, FIG. 19 illustrates a two-dimensional barcode 256, which represents the indexing identifier. As can be seen, the two-dimensional barcode 256 is much smaller than two-dimensional barcodes that represent a full postage indicium, because it contains much less information, i.e., a unique identifier. In this case, the unique identifier is composed of a postage vendor ID (07), user account number (500361), and piece count (1221st piece generated

for this user account). In fact, the information makes the indexing identifier is so minimal, that a one-dimensional barcode can be used. For example, a Code 128 barcode 258 illustrated in FIG. 20, or postal-specific barcode topology, such as the POSTNET or PLANET barcode 260 illustrated in FIG. 21, can be used to represent the postage vendor ID, account number, and piece count of the indexing identifier. Even more alternatively, use of a barcode can be omitted altogether, and the indexing identifier id) can simply be printed on the mail piece as numerical data 262, as illustrated in FIG. 22. The numerical data 262 can be read by Optical Character Recognition (OCR) software, the speed of which is compatible with mail processing requirements. Note that although the examples in FIGS. 19, 20, 21 and 22 used the unique combinations of postage vendor ID, account number and piece count, one could alternately employ a postal authority assigned tracking number as the unique indexing identifier.

Montgomery discloses an underling identifier that can be printed on a mail piece as numeral data.

The art cited by the Examiner do not disclose or anticipate steps B, C, D, E, F, and G of claim 1 as amended and those claimed dependent thereon.

The art cited by the Examiner also does not disclose or anticipate paragraphs b, c, and d of claim 12 and those claims dependent thereon.

The Examiner indicated that claim 12 of this application is conflict with claim 1 of this Application no. 10/719,050 and thus is not in compliance with 37 CFR § 1.78(b). Claim 1 of Application no. 10/719,050 as it appears in the response to the June 26, 2008 office action is a method claim that contains 146 words. Claim 12 of this application is a system claim that contains 238 words. Applicant submits that the above claims claim different subject matter.

The Examiner indicated that claim 12 of this application is in conflict with claim 1 of Application no. 10/719,051 and thus is not in compliance with 37 CFR § 1.78(b). Claim 1 of Application no. 10/719,051 as it appears in the response to the November 26, 2007 office action contains 170 words. Claim 12 of this application is a system claim that contains 238 words. Applicant summits the above claims claim different subject matter.

The Examiner indicated that claim 1 of this application is in conflict with claim 1 of Application no. 10/736,268 and thus is not an compliance with 37 CFR § 1.738(b). Claim 1 of Application no. 10/736,268 has no steps e, f and g as amended claim 1 of this application

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has. Thus, claim 1 of this application a amended claim different subject matter off claim 1 of Application no. 10/736,268.

If the Examiner is of the opinion that the claims of the above patent application claim subject matter that a provisional double patenting rejection should apply applicant in willing to file a terminal disclaimer for the above applications.

In view of the above claims 1-5, 7-16, and 18-20 are patentable. If the Examiner has any questions would the Examiner please call the undersigned at the telephone number noted below.

Please charge any additional fees that may be required or credit any overpayment to Deposit Account Number 16-1885.

Respectfully submitted,

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